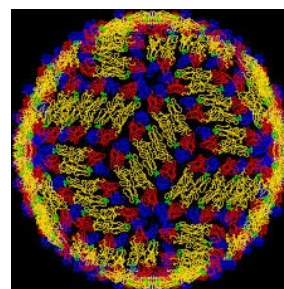
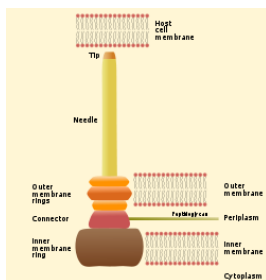




Northern California Branch of
the American Society for Microbiology

33rd Annual Spring Meeting
MARCH 4th & 5th, 2016

MICROBE WARS: THE FORCE AWAKENS



THE CEU COURSE NUMBERS FOR THIS MEETING ARE 16-002 THROUGH 16-008

PLEASE SUPPORT OUR SUSTAINING MEMBERS...
Their support helps bring you this meeting!

PLATINUM:

AMERICAN SOCIETY FOR MICROBIOLOGY
BIOFIRE
CEPHEID
ILLUMINA
MEDICAL CHEMICAL CORPORATION
SEKISUI DIAGNOSTICS

GOLD:

ANAEROBE SYSTEMS
BECKMAN COULTER
NANOSPHERE

SILVER:

ADVANCED INSTRUMENTS, INC
BRUKER
THERMOFISHER SCIENTIFIC



NCASM WEBSITE URL:

<http://www.asmbbranches.org/brcano>

★SESSION 1: Clinical Mycology — The Fungus Among Us

Location: Wimbledon Ballroom

Convener: Shirley Lowe, MS, MT(ASCP), Professor Emeritus, UC San Francisco

SESSION SPONSORED by the CARLYN HALDE FUND

8:25 - 8:30 Welcome and Announcements

8:30 - 9:20 **Candida albicans** Biofilms: Why Are They Important and How Are They Regulated?

Clarissa Nobile, PhD, MPhil, MA — UC Merced, Merced, CA

Biofilms are sticky business, and when it comes to infectious disease they always seem to overstay their welcome! Join us as Professor Nobile fills us in on the latest understanding of how *Candida albicans* biofilms form and just why they stick around.

9:20 - 10:10 Break - Coffee and Tea in the Exhibit Hall — Olympic Ballroom

10:10 - 11:00 **Valley Fever Vignettes: Case studies of Coccidioides in California**

Herbert Boro, MD, FACP— Cocci Study Group Program Director, Fresno, CA

Carried on the wind and into our lungs, we often don't even know we've been infected. Why does *Coccidioides* cause more severe disease in some people than others? Join Dr. Boro to review the risk factors and pathogenesis of Valley Fever through series of revealing case studies.

11:00 - 11:50 **Cryptococcus gattii: Recent Immigrant or Unrecognized Native?**

Shawn Lockhart, PhD, D(ABMM) — Centers for Disease Control, Atlanta, GA

Unlike its *neoformans* cousin, *C. gattii* has been found to infect immune competent patients, causing pneumonia & meningitis. While not as famous or wide-ranging as its cousin, *C. gattii* has emerged as a troublemaker in the Pacific Northwest. Dr. Lockhart helps us trace the Pacific Coast path of this emerging pathogen as we discuss its (travel) habits.

LUNCH — EXHIBIT HALL, Olympic Ballroom 11:50 - 1:40 PM

★SESSION 3: Bacterial Pathogens — Strategies for Attack and Escape

Location: Wimbledon Ballroom

Convener: Elizabeth Antaki, PhD, UC Davis, Davis, CA

1:40 - 2:30 **Fine-Tuning the Yersinia type III Secretion System in Response to Host Iron**

Victoria Auerbuch Stone, PhD — UC Santa Cruz, Santa Cruz, CA

Who needs a light saber when you have the elegantly designed and precisely controlled bacterial type III secretion system? Listen up as Dr. Stone reveals the mechanisms that *Yersinia* pathogens use to sense iron in their host...and steal it away for their own nefarious purposes!

2:30 - 3:20 Break - Refreshment in the Exhibit Hall — Olympic Ballroom

3:20 - 4:10 **Bartonella** Adaptation to Specific Niches

Jane Koehler, MA, MD — UC San Francisco, San Francisco, CA

Join Dr. Koehler as she reveals the mysterious lives of the genus *Bartonella*, from its adaptation and survival mechanisms in diverse hosts to its longtime association with humans. Let's get down in the trenches and learn just what makes this genus of bacteria tick!

4:10 - 5:00 **Biosafety in the Clinical Lab: Brucella, Coccidioides, and Mindfulness**

Ellen Jo Baron, PhD, D(ABMM) — Cepheid, Sunnyvale, CA

The zoonotic pathogens *Brucella* and *Coccidioides* are most commonly known to laboratorians for their risk as a laboratory-acquired infection. Come hear Dr. Baron discuss just what we need to watch out for in the laboratory.

★SESSION 2: Zoonotic and Vector-borne Viruses — An Update

Location: The Masters Salon

Convener: Mahtab Shahkarami, MS, PHM, Calif Dept Public Health, Richmond, CA

8:25 - 8:30 Welcome and Announcements

8:30 - 9:20 **Tracking Diseases from the Wild...Laboratory Investigations of Zoonotic and Vector-Borne Diseases in the Molecular Era**

Sharon Messenger, PhD — Calif Dept Public Health, Richmond, CA

Whether hiding in our furry friends or delivered on silent wings, zoonotic and vector-borne viruses have infected humans for millennia. How far have we come in understanding and controlling them? Join Dr. Messenger for a review and update of these diverse pathogens.

9:20 - 10:10 Break - Coffee and Tea in the Exhibit Hall — Olympic Ballroom

10:10 - 11:00 **Functional Genomics Screening Using RNAi and CRISPR/Cas9 Technology to Identify Drug Targets and Pathways of Rift Valley Fever Virus Infection**

Oscar Negrete, PhD — Sandia National Laboratories, Livermore, CA

From where will the next new virus emerge and how can we quickly discover their modes of pathogenesis and best develop anti-viral drugs? Focusing on Nipah and Rift Valley Fever viruses, Dr. Negrete will introduce us to the latest techniques to counteract viruses.

11:00 - 11:50 **Endogenous Viral Elements in the Aedes aegypti genome**

Mark Kunitomi — UC San Francisco, San Francisco, CA

Mosquito-borne pathogens cause a tremendous burden of disease in humans, but have you ever thought about what happens to the mosquito? Is it affected? If so, how? Come hear new insights to mosquito-parasite ecology revealed by advances in next-gen sequencing.

★SESSION 4: Microbial Ecology — And Impact on the Environment

Location: The Masters Salon

Convener: Alicia Taylor, PhD, UC Berkeley, Berkeley, CA

1:40 - 2:30 **Molecular Analysis of Microbial Communities in Thawing Permafrost Environments**

Mark Waldrop, MS, PhD — US Geological Survey, Menlo Park, CA

What do permafrost microbial communities and global warming have in common? Join Dr. Waldrop as he shows us how metagenomic and metatranscriptomic analysis of Arctic microbial communities can give us insight to the changes that global warming is bringing to the planet.

2:30 - 3:20 Break - Refreshment in the Exhibit Hall — Olympic Ballroom

3:20 - 4:10 **Bacterial Bio-Augmentation in Geotechnical Engineering**

Doug Nelson, PhD — UC Davis, Davis, CA

Soil bacteria as tiny engineers? While brewing, bioremediation and cheese-making are familiar roles played by bacteria; did you know they can be used for engineering tasks as well? Dr. Nelson will showcase soil microbes & processes that are creating starring roles for bacteria.

4:10 - 5:00 **Omics Techniques for Rumen Systems Microbiology**

Matthias Hess, PhD — UC Davis, Davis, CA

The rumen of cow holds a magical mystery tour of microbiological diversity and metabolic functions. By understanding this complex community we could improve the lives of cows and have an impact on reducing greenhouse gas emissions of methane: a "win-win" endeavor!

★SESSION 5: **AST Methods; Current and Upcoming Technologies & How to Convince Administrators You Need Them!**

Location: Wimbledon Ballroom
Convener: Susan Munro, MT (ASCP)

- 7:55 - 8:00 **Welcome and Announcements**
- 8:00 - 8:50 **AST methods: Then & Now**
Ellen Jo Baron, PhD, D(ABMM) — Cepheid, Sunnyvale, CA
 Antimicrobial resistance is a force to be reckoned with! Come explore with Dr. Baron both old and new methods for AST and how new molecular methods stack up against the traditional phenotypic techniques.
- 8:50 - 9:50 **Break - Coffee and Tea in the Exhibit Hall — Olympic Ballroom**
- 9:50 - 10:40 **Verification Testing of Antimicrobial Susceptibility Testing (AST) Methods: A Practical Approach.**
Susan E. Sharp, PhD, D(ABMM), F(AMM) — Kaiser Permanente, Portland, OR
 Verification testing for AST systems is a critical aspect of how we implement this testing in our laboratories. Understanding what is involved with this testing and when is it necessary will help you to know what to do, how to do it, and when to do it.
- 10:40 - 11:30 **Microbiology Beyond the Microscope: The Business of Science in the clinical microbiology laboratory**
Elizabeth Marlowe, MS, PhD, D(ABMM) — Kaiser Permanente, Berkeley, CA
 Struggling with how to decide whether that new instrument will help your laboratory operations? Dr. Marlowe will delve into how you can determine a business case for equipment purchases.

★SESSION 6: **Science Storytelling; Engaging Your Audience as You Advance Your Career**

Location: The Masters Salon
Facilitators Dennis F. Mangan, PhD, Chalk Talk Science, Santa Rosa, CA
Wendy J. Wilson, PhD

This highly participatory workshop which will give all workshop attendees expert help in crafting compelling science stories so they can seize the opportunity to engage audiences, make inspiring PowerPoint presentations, explain accomplishments in job interviews or simply to dazzle family and friends as effective ambassadors of microbiology!

- 7:55 - 8:00 **Welcome and Announcements**
- 8:00 - 8:50 Introduction to workshop and first breakout session
- 8:50 - 9:50 **Break - Coffee and Tea in the Exhibit Hall — Olympic Ballroom**
- 9:50 - 11:15 Breakout sessions continued
- 11:15 - 11:30 Workshop wrap up and resources for the path forward



Session 6 is our Student Session, sponsored by the American Society for Microbiology.



★★ **LUNCH and NCASM Business Meeting 11:40 - 1:30** ★★
Olympic Ballroom

★SESSION 7: **Innovative Approaches and Hot Topics in Microbiology**

Location: Olympic Ballroom
★ Convener: Jennifer Kyle, PhD, CLS, PHM — NCASM President 2015-2017★

- 1:30 - 2:20 **Identification and Characterization of Secondary Metabolic Systems Using Genomic and Metagenomic Approaches**
David Sherman, PhD — University of Michigan, Ann Arbor, MI
 Who could imagine what secrets uncultured microbes are hiding? Join Dr. Sherman as he shows us how metagenomic techniques are allowing us to peer into the magic of the unknown...revealing a diversity of secondary compounds with anti-cancer potential that are lurking in the most unlikely places...in the depths of the ocean!
 PRESENTATION SPONSORED by the ASM BRANCH LECTURESHIPS PROGRAM
- 2:20 - 3:10 **Threat of Exotic Mosquito-Borne Diseases Emerging in California**
Duc Vugia, MD, MPH — Calif Dept Public Health, Richmond, CA
 Coming soon to a treehole near you...the *Aedes aegypti* and *A. albopictus* mosquitoes are popping up around California, bringing with them the threat of invasion by dengue, chikungunya and most recently Zika virus. Come and hear the latest scoop about these winged invaders and the viruses they can carry!
- 3:10 - 4:00 **The Democratization of Science — Do-It-Yourself Biology and the Citizen Science Movement**
Patrik D'haeseleer, PhD — Lawrence Livermore National Laboratory, Livermore, CA
 DIY biology...every heard of it? Do-It-Yourself biology is part of a creative and innovative new approach to citizen science initiatives that seeks to involve and inform our communities on how science is done. Join Dr. D'haeseleer as he shares his experiences in establishing spaces and support for this new frontier of science.



33rd Annual NCASM Meeting March 4th & 5th, 2016

PREREGISTRATION DEADLINE –online by noon on **3/1/2016**; mail-in postmarked by **2/28/2016**



NCASM Secretary

Amy Kingsley
P.O. Box 822
Los Altos, CA 94023



DoubleTree by Hilton Hotel, Pleasanton @ the Club—Pleasanton, CA

7050 Johnson Dr.

Pleasanton, CA 94588

At the intersection of I-580 & I-680

The hotel has just finished a stylish renovation, including the rooms. Special meeting room rate: \$102.00

Please use the following website for reserving rooms:

<http://doubletree.hilton.com/en/dt/groups/personalized/P/PLEPCDT-NSM-20160303/index.jhtml>

***** Rate cut-off Feb. 17th, 2016 *****

Or register for this group rate by asking to book with the NCASM Meeting (code = NSM)

Directions to the Doubletree by Hilton, Pleasanton @ the Club:

From SF:

Take I-80 East to the Bay Bridge / Oakland to I-580 East (towards the I-580/CA24 split). Continue on I-580E, exit at Hopyard Rd. Turn right onto Hopyard Rd. Turn right at Owens Dr. Take the second right onto Johnson Dr. The hotel is in the curve of Johnson Drive.

From the Peninsula:

Take US-101 to the San Mateo Bridge I-92. Take I-92 East to I-880 North. Continue on I-880 N to CA-238 (exit 31A). Follow ramp onto CA-238 towards Castro Valley/Stockton. Merge onto I-580 East, continue to the Hopyard Rd. exit. Turn right on to Hopyard Rd. Turn right at Owens Dr. Take the second right onto Johnson Dr. The hotel is in the curve of Johnson Drive.

From the South Bay:

Take I-880 North to exit 12A (Mission Blvd). Continue towards I-680N (to Sacramento). Continue on I-680N to exit 29 (Stoneridge Dr. 16 miles). Exit at Stoneridge, Take a right at bottom of ramp. Driving right on Stoneridge, take the first left onto Johnson Dr. The hotel is in the curve of Johnson Drive.

From the North Bay:

Take US-101 to I-580 East. Take the I-580E to the Richmond-San Rafael Bridge. Cross the bridge and follow the sign reading "I-580 E to Downtown Oakland / Hayward / Stockton", continuing on I-580E; exit at the Hopyard Rd. exit. Turn right on to Hopyard Rd. Turn right at Owens Dr. Take the second right onto Johnson Dr. The hotel is in the curve of Johnson Drive.

From the East Bay:

The Conference site is located at the intersection of I-580 and I-680 on the opposite side of 680 from Stoneridge Mall. Exit 580 at the Hopyard Rd. exit. Turn right onto Hopyard Rd. Turn right at Owens Dr. Take the second right onto Johnson Dr. The hotel is in the curve of Johnson Drive.

GENERAL INFORMATION

Full Registration

Includes all sessions for both days, exhibits, refreshments, and all food and beverage functions provided by NCASM throughout the entire meeting.

Single Day Registration

Includes sessions, exhibits, refreshments, and all food and beverage functions provided by NCASM for the day of registration.

Student Registration (Full Time Students Only)

Includes sessions, exhibits, refreshments, and all food and beverage functions provided by NCASM for the time attending. When registering, students MUST submit a copy of a valid STUDENT I.D. CARD. One fee is valid for either day or for the entire meeting.

Transportation & Parking

The Hilton Doubletree offers free parking. Overflow parking is available behind the hotel. The hotel is 1 mile from the Dublin BART station, and there is a free hotel shuttle for overnight guests.

Membership

NCASM membership runs from January 1 to December 31 of each year. Membership is \$25.00 a year and student membership is \$5.00 a year. Membership in NCASM gives you a network within the microbiology community. As a member you will receive notification of two general meetings a year, **free** CEUs at NCASM meetings, and information regarding regional meetings and events in your area.

Exhibits

Take the opportunity to visit with the companies that provide products and services to your laboratory. Exhibits are open during all the breaks, Friday at lunch and during the Friday evening Reception.

NCASM Message Board

NCASM provides both a message board (so that you can easily leave messages and notes for your colleagues), as well as a Job/Position Board for employment opportunity announcements.

Americans with Disabilities Act (ADA)

To comply with ADA requirements, NCASM and the Hilton Doubletree will make every effort to provide for the participant's comfort and convenience.

NCASM Poster Session

NCASM will be hosting a poster session at this meeting. Microbiology—themed posters can be presented during this session. For further information, contact Janice Hamer at: ncasmpostersession@zoho.com

Continuing Education

NCASM is an approved provider and accrediting agency (accreditation #0044) for the California Laboratory Continuing Education. All NCASM Spring Meeting sessions qualify for 3 continuing education units (3 contact hours). CEU Certificates of Attendance will be available on-site at the **END of each day**.

Instructions for Receiving CEU:

1. Evaluation forms will be distributed to those participants requesting CEUs in each session during the **first 10 minutes only**. Only **one** CEU evaluation form will be given for concurrent sessions. After the first 10 minutes, participants must pick up a CEU evaluation form at the CEU desk. **Participants who arrive after the first 10 minutes of a presentation are not eligible to receive CEU credits for the lecture.**
2. You may attend talks in either concurrent session, but must **complete an evaluation** form for each presentation attended. Each talk is one (1) contact hour. There are three (3) contact hours in each session.
3. You must submit the following to the CEU booth at the **completion of your total attendance** at the meeting:
 - a. A completed evaluation form from all of the attended sessions.
 - b. Your name tag to verify your paid attendance.
4. You will receive a CEU certificate after personally signing the roster at the CEU booth.
5. Only one (1) CEU certificate will be issued to each participant.

**** No certificates will be mailed. ****

Location of the CEU Booth will be announced at the beginning of each session.

REMEMBER:

- * YOU MUST OBTAIN AN EVALUATION FORM FOR EACH SESSION YOU ATTEND.
- * CEUs WILL **ONLY** BE GIVEN IN PERSON.
- * NO CERTIFICATES WILL BE MAILED.
- * CEUs WILL ONLY BE ISSUED DURING CEU DESK HOURS.
- * YOU MUST SIGN THE CEU ROSTER.

ONLINE REGISTRATION NOW AVAILABLE!
See NCASM Website for details

REGISTRATION FORM

Name _____

Employer/Affiliation _____

Mailing Address _____
 ___ Business _____
 ___ Home _____

Telephone (H) _____ (W) _____

Email Address _____ All NCASM correspondence is via email

email –please check here if NCASM can contact you via email

33rd Annual NCASM Meeting Microbe Wars: The Force Awakens March 4 & 5, 2016

(CIRCLE ONLY ONE AMOUNT BELOW and ENTER AMOUNT ON LINE "A")

	Member (Paid-to-date)	Professional Non-Members	Student* Members (includes NCASM membership)
Both Days	<input type="checkbox"/> \$165	<input type="checkbox"/> \$255	<input type="checkbox"/> \$60
Friday Only	<input type="checkbox"/> \$110	<input type="checkbox"/> \$165	<input type="checkbox"/> \$45
Saturday Only	<input type="checkbox"/> \$110	<input type="checkbox"/> \$165	<input type="checkbox"/> \$45

* Students must submit a copy of a Valid Student I.D. Card with registration form.

Line A \$ _____
Late Fee (postmark after **Feb 28th**) Add \$20 \$ _____
 Non-NCASM Members CEU Fee Add \$25 \$ _____

NCASM Membership

(January - December 2016).....Regular \$25 \$ _____

(January—December 2016).....Student \$5 \$ _____

Total \$ _____

ONLINE REGISTRATION NOW AVAILABLE —PLEASE SEE OUR WEBSITE FOR DETAILS:
www.asmbanches.org/brcano

I AM A MEMBER OF ASM (CIRCLE ONE) Y / N ASM NO. _____
 CHECK HERE TO HAVE YOUR NAME DELETED FROM COMMERCIAL MAILINGS

Make Checks payable to NCASM (Credit Cards Accepted Online Reg. Only)

Mail form and checks to NCASM Secretary:

Amy Kingsley
 P.O. Box 822
 Los Altos, CA 94023

EMPLOYMENT/DISCIPLINE:

ACADEMIA INDUSTRY
 CLINICAL
 PUBLIC HEALTH
 OTHER (SPECIFY) _____

For Registration Information, contact:

Amy Kingsley, CLS
 E-mail: amy.kingsley.ncasm@gmail.com

I WOULD LIKE TO HELP ON AN NCASM COMMITTEE:

WEBSITE NEWSLETTER
 PROGRAM AWARDS
 UNDERGRAD STUDENT CHAPTERS
 SCIENCE/EDUCATION